

# INTERNATIONAL SEARCH REPORT

PCT/GB2004/004145

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B01F5/00 C22B3/02 B01F3/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 C22B B01F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, COMPENDEX

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 4 053 142 A (JOHANNES ET AL) 11 October 1977 (1977-10-11) figure 2; abstract -----	1,2,11, 12
X	EP 0 498 024 A (ERWIN MUELLER GMBH) 12 August 1992 (1992-08-12) figure 1; claim 1 -----	1-3
A	DE 448 148 C (SOCIEDAD MINERA "CUPRUM") 12 March 1928 (1928-03-12) figures; page 1, lines 1-9 -----	1-4,11
A	US 6 368 381 B1 (KING JAMES A ET AL) 9 April 2002 (2002-04-09) figure 3 -----	1-4,11
	----- -/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

### \* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

22 February 2005

Date of mailing of the international search report

23.06.05

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 298 377 A (SZEKELY ET AL) 3 November 1981 (1981-11-03) claim 1; figures	1-4,11
X,P	----- WO 03/101868 A (DYNAMIC PROCESSING SOLUTIONS PLC; DELVES, JAMES, EDWARD; YOUNG, NEIL,) 11 December 2003 (2003-12-11) figures 1 and 2 -----	1

## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/GB2004/004145

### Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
  
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
  
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

### Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☒ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  
1-4, 11, 12

#### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-4,11,12

Apparatus comprising a solvent and/or a solute inlet having a fluidising unit which creates a vortex in the solvent and/or solute, in particular suitable for the leaching of ore.

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2. claim: 5

Apparatus comprising a solvent and/or a solute inlet having a fluidising unit which creates a vortex in the solvent and/or solute, in particular suitable for dissolving salt (solute) in water (solvent).

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3. claims: 6-8

Apparatus comprising a solvent and/or a solute inlet having a fluidising unit which creates a vortex in the solvent and/or solute, in particular suitable for use with edible or potable solute in the food and drink industries.

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4. claims: 9-10

Apparatus comprising a solvent and/or a solute inlet having a fluidising unit which creates a vortex in the solvent and/or solute, in particular suitable for pressurised treatment of seeds prior to sowing.

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/GB2004/004145

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 4053142	A	11-10-1977	NONE	
EP 0498024	A	12-08-1992	DE 4103172 A1 AT 149576 T DE 59108582 D1 EP 0498024 A1	06-08-1992 15-03-1997 10-04-1997 12-08-1992
DE 448148	C	12-03-1928	NONE	
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US 4298377	A	03-11-1981	CA 1165128 A1 DE 3071753 D1 EP 0030220 A2 ES 8205572 A1 JP 1312438 C JP 56090938 A JP 60036460 B	10-04-1984 16-10-1986 10-06-1981 01-11-1982 11-04-1986 23-07-1981 20-08-1985
WO 03101868	A	11-12-2003	GB 2389094 A AU 2003242837 A1 BR 0311521 A CA 2487698 A1 EP 1532064 A1 WO 03101868 A1	03-12-2003 19-12-2003 22-02-2005 11-12-2003 25-05-2005 11-12-2003